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10/695,753	10/30/2003	Yang Hoon Kim	HI-0182	6170

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EXAMINER	
MOON, SEOKYUN	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/695,753	KIM, YANG HOON	
	Examiner	Art Unit	
	Seokyun Moon	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 18-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 18-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. The Applicants' arguments filed on April 27, 2007 have been fully considered but they are not persuasive.

35 U.S.C. 112 1st Paragraph

In response to the rejections under 35 U.S.C. 112 1st paragraph, the Applicants indicated "*Claim 23 recites that the brightness control information read out from the first memory area is simultaneously stored in different locations of the second memory area*" and pointed out that figure 5 of the current application supports the claimed subject matter.

Examiner respectfully disagrees.

Figure 5 of the current Application shows a state of a memory that the brightness control information for the first power supply and the second power supply are simultaneously stored in the different locations of the second memory area. However, claims 23-26 recite a process of storing the brightness control information. Specifically, the claims disclose simultaneously storing the brightness control information in the different locations of the second memory area. According to the specification of the Application, even though, the brightness control information for the first power supply and the second power supply are stored in the second memory area simultaneously at one state, the timings of storing the brightness control information for the first power supply and the second power supply in the second memory area are different (i.e. the processor of the display does not store the brightness control information for the first power supply and the second power supply, simultaneously).

Therefore, the specification of the current Application does not support the claimed subject mater.

Appropriate corrections are required.

35 U.S.C. 103(a)

Regarding the rejection of claim 1, the Applicants pointed out that the prior art of the record (Loughran) does not teach, "*respectively storing, in different locations of a second memory area, the brightness control information read out from the first memory area for the first and second power modes*".

Examiner respectfully disagrees.

First of all, in response to the Applicants' arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the previous rejection, the Examiner clearly explained that AAPA teaches storing, in the second memory area, the brightness control information read out from the first memory area for the first and second power modes, but does not teach the brightness control information being stored respectively in different locations of the second memory.

Second, Loughran does teach respectively storing brightness control information for a first power mode and a second power mode in different locations of a second memory area. Specifically, Loughran teaches modifying power management behavior for existing context modes [par. (0062) lines 21-23], which comprise a first power mode and a second power mode [par. (0008) lines 1-5]. Loughran further teaches modifying power management behavior including modifying brightness control information [par. (0068)]. Loughran inherently teaches storing the brightness control information for existing context modes, which includes a first power mode and a second power mode in a memory, since it is required for the device of Loughran to store the different power management behavior, which includes the brightness control information, in order to retrieve the power management behavior for one of the existing context modes when one of the existing context modes is selected by the device-user. Loughran further inherently teaches the brightness control information being stored in different locations of a memory area since it is

required for the device of Loughran to store different power management behaviors for different context modes separately. Note that since RAMs included in the memory 11 are the only storage devices, which can be rewritten, in the notebook computer of Loughran, it is required for the device of Loughran to store any data in the RAMs.

Currently, all the rejections made in the previous Office Action are maintained.

Claim Objections

2. **Claim 28** is objected to because of the following informalities: "*transforming the brightness control information stored in the auxiliary memory to the respective different locations in the second memory area*".

According to the specification of the current Application [pg 8 par. (32)], the brightness control information is not transformed but transferred.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 23-26** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The aspect of the invention disclosed in the claims, "*simultaneously storing*" or "*simultaneously stores*" is not consistent with the aspect of the invention disclosed in the specification. According to the

specification of the Application, the storing processes of the brightness control information for the first power mode and the second power mode occur at different timings. In order to store the brightness control information for the first power mode, the device must be operated in the first power mode since the device user set the preferred brightness level for the first power mode when the device is operated in the first power mode. On the other hand, in order to store the brightness control information for the second power mode, the device must be operated in the second power mode since the device user set the preferred brightness level when the device is operated in the second power mode. Since the device cannot be operated in different power modes simultaneously, the storing processes for the first power mode and the second power mode cannot be occurred simultaneously.

As best understood by the Examiner, the term "*simultaneously*" will be omitted for further examination purpose.

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 1-16** and **18-28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Admitted Prior Art (herein after "*AAPA*") in view of Loughran (US 2003/0134632).

As to **claim 1**, AAPA [Appl. fig. 4] teaches a method for adjusting a brightness level of a display used in a portable computer system [Appl. pg 6 par. (21)], the method comprising:

separately storing, in a first memory area ("*Micom-Rom 200*") [Appl. fig. 4], brightness control information for a plurality of brightness levels for each of at least two power mode types ("*AC adaptor power mode" and "Battery power mode*");

reading out brightness control information in a first power mode for an adjusted one of the levels and in a second power mode for an adjusted one of the levels from the first memory area [pg 8 par. (31) lines 1-5];

storing, in a second memory area ("*CMOS-RAM 180*"), the brightness control information read out from the first memory area for the first and second power modes [pg 8 par. (31) lines 5-9];

confirming a type of power mode currently being used out of the first and the second power mode types [pg 9 par. (34)]; and

controlling the brightness level of the display based on the brightness control information independently stored in the second memory area for the confirmed power mode [pg 9 par. (34)].

AAPA does not teach the method comprising respectively storing the brightness control information read out from the first memory area for the first and second power modes, in different locations of a second memory area.

However, Loughran teaches a method of storing a different power profile [par. (0062) lines 12-27] which comprises brightness level control [par. (0068)], for each of a plurality of different device states / modes such as a mode used when the computer is operated with battery and a mode used when the computer is operated with AC adaptor [par. (0008)], and of controlling the device operation according to the power profiles depending on a present operational state or mode [par. (0011)]. Furthermore, Loughran inherently teaches that the brightness level controls for the first power mode type and the second power mode type are stored at different locations of RAM ("RAM" included in "memory 11") [fig. 1] since it is required for the device of Loughran to hold a plurality of brightness level controls in the memory

simultaneously and it is not possible to hold the plurality of brightness level controls at the same location simultaneously.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Loughran's idea of storing a different power profile including brightness level control in a RAM, for each of a plurality of different device-modes including AC adaptor mode and battery mode, to the display of AAPA, by modifying the RAM of AAPA to store the different power profiles for different device-modes, in order to optimize the effectiveness of the display of AAPA for an user who operates the device in different contexts / modes [par. (0005)].

As to **claim 2**, AAPA as modified by Loughran teaches the method comprising adjusting the brightness level of a LCD using an input device, wherein the type of power mode currently being used includes at least one of an AC adaptor and a supplementary battery mode [Appl. pg 8 par (31) lines 1-5].

As to **claim 3**, AAPA as modified by Loughran teaches that the type of power mode currently being used includes at least one of an AC adaptor mode and a supplementary battery mode when power of the portable computer system is switched to a power on mode from a power off mode [Appl. pg 9 par. (33)].

As to **claim 4**, AAPA as modified by Loughran teaches that when the power mode type currently being used in the portable computer system is changed to a different power mode type, the changed power mode type includes at least one of an AC adaptor mode and a supplementary battery mode [Appl. pg 9 par. (33)].

As to **claim 5**, AAPA as modified by Loughran [Appl. fig. 4] teaches that when a power supply being confirmed is a supplementary battery, the brightness level of the display is adjusted by using an index information corresponding to the brightness levels in a battery power mode [Appl. pg 8 par. (31)].

As to **claim 6**, AAPA as modified by Loughran teaches that when a power supply being confirmed is an AC adaptor, the brightness level of the display is adjusted by using an index information corresponding to the brightness levels in an AC adaptor power mode [Appl. pg 8 par. (31)].

As to **claim 7**, AAPA as modified by Loughran teaches the index information corresponding to the brightness levels in the AC adaptor power mode and the index information corresponding to the brightness levels in the battery power mode are independent and respectively stored in the first memory area [Appl. fig. 4].

As to **claim 8**, AAPA as modified by Loughran [Appl. fig. 4] teaches that the index information corresponding to the brightness levels in the AC adaptor power mode and the index information corresponding to the brightness levels in the battery power mode are separately stored in a microcomputer memory of the personal computer system and in a system initialization RAM, the microcomputer memory including the first memory area [Appl. pg 7 par. (28) and pg 8 par. (32)] and the system initialization RAM (Loughran: "*RAM*" included in the "*memory 11*") [Loughran: fig. 1] including the second memory area .

As to **claim 9**, AAPA as modified by Loughran teaches that when a power supply being confirmed is an AC adaptor, the brightness level of the display is adjusted by using an index information corresponding to the brightness levels in an AC adaptor power mode [Appl. pg. 8 par. (31)].

As to **claim 10**, AAPA [Appl. fig. 4] teaches a method comprising:

independently storing, in a first storage area ("*Micom-ROM 200*"), brightness level information for a plurality of power supplies ("*AC adaptor*" and "*Battery*") in a computer system;

reading out the brightness level information from the first storage area for first power supply and brightness level information from the first storage area for a second power supply [pg 8 par. (31) lines 1-5];

determining a type of power supply currently being used among the plurality of power supplies in the computer system when a brightness level of a display is adjusted [pg 8 par. (31) lines 1-5];

selecting brightness level information from the independently stored information in a first storage area, the selected brightness level information corresponding to the determined power supply type for the adjusted brightness level of the display, the determined power supply type corresponding to one of the first or second power supplies [pg 8 pars. (31) and (32)];

reading index information corresponding to the selected brightness level information [pg 8 par. (32)];

driving the adjusted brightness level of the display based on the readout index information [Appl. pg 8 par. (32)]; and

updating the second storage area to independently store the index information according to the determined type of power supply [pg 8 par. (32)].

respectively storing, in different locations of a second storage area, brightness level information read out from the first storage area for a first power supply and brightness level information read out from the first storage area for a second power supply [as discussed with respect to the rejection of claim 1].

AAPA does not teach the method comprising respectively storing the brightness control information read out from the first memory area for the first and second power modes, in different locations of a second memory area.

However, Loughran teaches a method of storing a different power profile [par. (0062) lines 12-27] which comprises brightness level control [par. (0068)], for each of a plurality of different device states / modes such as a mode used when the computer is operated with battery and a mode used when the computer is operated with AC adaptor [par. (0008)], and of controlling the device operation according to the power profiles depending on a present operational state or mode [par. (0011)]. Furthermore, Loughran inherently teaches that the brightness level controls for the first power mode type and the second power

mode type are stored at different locations of RAM ("RAM" included in "memory 11") [fig. 1] since it is required for the device of Loughran to hold a plurality of brightness level controls in the memory simultaneously and it is not possible to hold the plurality of brightness level controls at the same location simultaneously.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Loughran's idea of storing a different power profile which comprises brightness level control in RAM, for each of a plurality of different device states / modes, to the display of AAPA in order to optimize the effectiveness of the display of AAPA for an user who operates the device in different contexts / modes [par. (0005)].

As to **claim 11**, AAPA as modified by Loughran teaches that at least one of an index information corresponding to an adjusted brightness level in an AC adaptor power mode and an index information corresponding to an adjusted brightness level in a battery power mode is separately stored in the second storage memory [as discussed with respect to the rejection of claims 1 and 10].

As to **claim 12**, AAPA as modified by Loughran teaches the method comprising changing from a first power supply being an AC adaptor to a second power supply being a battery, wherein the driving the adjusted brightness level of the display comprises referring to an index information in a battery power mode, and wherein the index information is separately stored in second storage area [Appl. pg 9 par. (35)].

As to **claim 13**, AAPA as modified by Loughran teaches the method comprising changing from the battery to the AC adaptor, wherein the driving the adjusted brightness level of the display comprises referring to an index information in an AC adaptor power mode, and wherein the index information is separately stored in the second storage area [Appl. pg 9 par. (34)]

As to **claim 14**, AAPA as modified by Loughran teaches the method comprising turning on power of the computer system after the power was turned off, wherein the driving the adjusted brightness

level of the display comprises confirming the type of power supply currently being used, and reading out of the second storage area index information in an AC adaptor power mode or in a battery power mode [Appl. pg 8 par. (32)].

As to **claim 15**, AAPA as modified by Loughran teaches the brightness level of the display being adjusted automatically, periodically or using an input device by a user [Appl. pg 8 par. (31) lines 1-5]

As to **claim 16**, all of the claim limitations have already been discussed with respect to the rejection of claims 1 and 10.

As to **claim 18**, AAPA as modified by Loughran teaches the method comprising adjusting the brightness level of a LCD using an input device, wherein the type of power mode currently being used includes at least one of an AC adaptor mode and a supplementary battery mode [Appl. pg 8 par. (31) lines 1-5].

As to **claim 19**, AAPA as modified by Loughran teaches that the index information stored in the second storage area in the AC adaptor mode corresponds to a brightness level different than a brightness level corresponding to the index information stored in the second storage area in the supplementary battery mode [par. (0008) and par. (0062) lines 13-28].

As to **claim 20**, AAPA [pg 7 par. (27)] teaches an apparatus that controls an inverter pulse width modulation frequency of a liquid crystal display in a portable computer, comprising:

a first storage area ("*ROM 200*") [fig. 4] configured to separately provide LCD brightness level information for a plurality of brightness levels for each of at least two power mode types [pg 7 par. (28)];

a second storage area ("*RAM 180*") configured to store the brightness level information in a first power mode for an adjusted one of the levels and in a second power mode for an adjusted one of the levels read out from the first storage area;

an inverter ("*inverter 33*") [fig. 3] configured to supply a voltage to the LCD [pg 7 par. (27)lines 3-4]; and

a control circuit ("*micom 20*") for controlling a PWM frequency of the inverter to achieve a designated brightness level based on the LCD brightness level information independently stored in the second storage area for a current power supply mode [pg. 7 par. (27) lines 5-8].

AAPA does not teach the second storage area configured to respectively store the brightness level information in a first power mode for an adjusted one of the levels and in a second power mode for an adjusted one of the levels read out from the first storage area, in different locations.

However, Loughran teaches a method of storing a different power profile [par. (0062) lines 12-27] which comprises brightness level control [par. (0068)], for each of a plurality of different device states / modes such as a mode used when the computer is operated with battery and a mode used when the computer is operated with AC adaptor [par. (0008)], and of controlling the device operation according to the power profiles depending on a present operational state or mode [par. (0011)]. Furthermore, Loughran inherently teaches that the brightness level controls for the first power mode type and the second power mode type are stored at different locations of RAM ("RAM" included in "memory 11") [fig. 1] since it is required for the device of Loughran to hold a plurality of brightness level controls in the memory simultaneously and it is not possible to hold the plurality of brightness level controls at the same location simultaneously.

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Loughran's idea of storing a different power profile which comprises brightness level control in RAM, for each of a plurality of different device states / modes, to the display of AAPA in order to optimize the effectiveness of the display of AAPA for an user who operates the device in different contexts / modes [par. (0005)].

As to **claim 21**, AAPA as modified by Loughran [Appl. fig. 4] teaches the LCD brightness level information including index information [pg 7 par. (28)].

As to **claim 22**, AAPA as modified by Loughran [Appl. fig. 4] teaches the first ("*ROM 200*") and second storage devices ("*RAM 180*") being different memories.

As to **claim 23**, AAPA as modified by Loughran teaches the respectively storing including independently storing, in the different locations of the second memory area, the brightness control information read out from the first memory area for the first and second power modes (as discussed with respect to the rejection of claim 1, Loughran inherently teaches storing the brightness control information in the different locations of the second memory area).

As to **claim 24**, all of the claim limitations have already been discussed with respect to the rejection of claims 1 and 23.

As to **claim 25**, all of the claim limitations have already been discussed with respect to the rejection of claims 1 and 23.

As to **claim 26**, all of the claim limitations have already been discussed with respect to the rejection of claims 16 and 25.

As to **claim 27**, AAPA as modified by Loughran [AAPA: fig. 4] teaches the brightness control information stored in the first memory area ("*Micom-Ram 200*") for the first power mode lies ("*AC adaptor power mode*") within a first percentage range (20% - 160%) and the brightness control information stored in a first memory area for the second power mode ("*battery power mode*") lies in a second range (0% - 140%) having a different brightness percentage range.

As to **claim 28**, AAPA as modified by Loughran teaches storing the brightness control information for the first and second power modes in an auxiliary memory (AAPA: "*CMOS-RAM 180*") [AAPA: fig. 4 and pg 8 par. (32)] and transferring the brightness control information stored in the auxiliary memory to the respective different locations in the second memory area (the modified "*Micom-RAM 201*" as discussed with respect to the rejection of claim 1) when the computer system is turned on after it has been turned off [AAPA: pg 8 par. (32)].

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seokyun Moon whose telephone number is (571) 272-5552. The examiner can normally be reached on Mon - Fri (8:30 a.m. - 5:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (572) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 13, 2007
- s.m.

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